

REMARKS

In the non-final Office action mailed August 21, 2007, the Examiner rejected independent claim 24 under 35 U.S.C § 103(a) over six (6) combinations of seven (7) references. These six combinations are summarized in the following table:

	1	2	3	4	5	6
Rosenau et al.	x	x	x	x	x	x
Fischer et al.	x	x	x			
Yutaka	x	x	x			
Ellison		x		x		
Endoh			x			x
Sallmetall	x					
Trabert et al.					x	

The Examiner should withdraw all rejections of claim 24 under 35 U.S.C § 103(a), because a skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising the recited components A, B and a ground or granulated component C, which consists of a polycarbonate.

Rejection 1, as labeled in the table above, should be withdrawn. *Rosenau et al.* disclose shaped articles from thermoplastic molding materials containing: A) a thermoplastic styrene polymer; B) a graft polymer; and C) a particulate polymer composed of, in one embodiment, c3) a polymer which is incompatible or partially incompatible with mixtures containing components A and B. Column 9, lines 59 – 65 provides examples “of partially compatible polymers ... [including] the three phase system polycarbonate/polybutadiene/copolymer of styrene and acrylonitrile (=polycarbonate/ABS).” *Rosenau et al.* does not teach or suggest a ground or granulated component consisting of polycarbonate. The Examiner acknowledged that the *Fischer et al.* reference “does not teach that the composition may comprise a polycarbonate.”¹ *Yutaka et al.* disclose a thermoplastic resin composition having remarkably improved appearance, and high impact resistance, made by compounding a polycarbonate resin to an “AAS-resin”² prepared by using a specific crosslinked acrylic rubber having a multi-layered structure.³ Applicants respectfully submit that the Examiner has

¹ Page 3, line 17 of the Office action mailed August 21, 2007.

² Abstract: line 4 of Yutaka et al. (JP 61-026646).

³ Abstract Yutaka et al. (JP 61-026646).

mischaracterized the scope and content of the *Yutaka et al.* reference by stating that it “teaches that the appearance and high impact resistance of a core/shell graft copolymer may be improved by compounding it with 5 – 95wt% polycarbonate...”⁴ A skilled artisan would have had the skill to understand that the *Yutaka et al.* reference does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with 5 – 95 wt % polycarbonate. A skilled artisan have understood that the *Yutaka et al.* reference teaches that improved appearance, and high impact resistance can only be achieved when a thermoplastic resin composition is made by compounding a polycarbonate resin to an “AAS-resin”⁵ prepared by using a specific crosslinked acrylic rubber having a multi-layered structure. Moreover, *Yutaka et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. *Sallmetall et al.* merely disclose a three-layer light-transmitting cover foil intended to be arranged adheringly to a surface. A skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 2, as labeled in the table above, should be withdrawn. As discussed above, *Rosenau et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. The Examiner acknowledged that the *Fischer et al.* reference “does not teach that the composition may comprise a polycarbonate.”⁶ As discussed above, *Yutaka et al.* does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with 5 – 95 wt % polycarbonate. Moreover, *Yutaka et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. *Ellison* discloses a flexible composite surfacing film and a method for producing a flexible composite surfacing film. A skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 3, as labeled in the table above, should be withdrawn. As discussed above, *Rosenau et al.* does not teach or suggest a substrate layer comprising a ground or

⁴ Page 3, lines 18 – 20 of the Office action mailed August 21, 2007.

⁵ Abstract: line 4 of *Yutaka et al.* (JP 61-026646).

⁶ Page 3, line 17 of the Office action mailed August 21, 2007.

granulated component consisting of polycarbonate. The Examiner acknowledged that the *Fischer et al.* reference “does not teach that the composition may comprise a polycarbonate.”⁷ As discussed above, *Yutaka et al.* does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with 5 – 95 wt % polycarbonate. Moreover, *Yutaka et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. *Endoh et al.* disclose that an extrusion laminated product can be obtained by coextrusion of at least three layers, wherein at least one of the surface layers comprises polyvinylidene fluoride, the substrate layer comprises either polyvinylidene and the substrate layer comprises a thermoplastic layer, made of an conventional thermoplastic resin like polyvinyl chloride resin, a polycarbonate resin or an acrylonitrile-butadiene-styrene resin. Clearly *Endoh et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. A skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 4 is redundant in light of Rejection 2, and should be withdrawn for the reasons set forth with regard to Rejection 2.

Rejection 5, as labeled in the table above, should be withdrawn. As discussed above, *Rosenau et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. *Trabert et al.* relates to a plastic composite formed by feedblock coextrusion and comprising capstock overlying and integrally bonded to an underlying structural plastic ply, the capstock composition comprising: (A) from about 40 to about 88 wt. % of a thermoplastic resin having a molecular weight of at least about 125,000 daltons, and selected from the group consisting of methyl methacrylate and a C1 to C4 alkyl acrylate; and (B) from about 12 to about 60 wt. % of an acrylate-based impact-modifier resin in the form of discrete particles; wherein said composition has a melt flow index of from about 0.4 to about 0.75 and where the discrete particles are dispersed in the thermoplastic resin which constitutes a continuous phase of said composition. A skilled artisan had no apparent reason to

⁷ Page 3, line 17 of the Office action mailed August 21, 2007.

combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 6 is redundant in light of Rejection 3, and should be withdrawn for the reasons set forth with regard to Rejection 3.

Rejections 1 – 6 were also applied against dependent claim 31. Rejection 2 was also applied against dependent claim 34. Both claims 31 and 34 depend from claim 24. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious.”⁸ Since claim 24 is non-obvious, claims 31, and 34, which depend from claim 24, are also non-obvious.

In the non-final Office action mailed August 21, 2007, the Examiner rejected independent claim 41 under 35 U.S.C §103(a) over five (5) combinations of six (6) references. These five combinations are summarized in the following table:

	7	8	9	10	11
Rosenau et al.	x	x	x	x	x
Fischer et al.	x	x	x		
Yutaka	x	x	x		
Ellison		x		x	
Endoh			x		x
Sallmetall	x				

The combination applied in Rejection 7 is identical to the combination applied against claim 24 in Rejection 1. The combination applied in Rejection 8 is identical to the combination applied against claim 24 in Rejection 2. The combination applied in Rejection 9 is identical to the combination applied against claim 24 in Rejection 3. The combination applied in Rejection 10 is identical to the combination applied against claim 24 in Rejection 4. The combination applied in Rejection 11 is identical to the combination applied against claim 24 in Rejection 6.

Like claim 24, claim 41 has been amended to require a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate. Thus, as discussed above with regard to claim 24, a skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at the present invention. The rejections of claim 41 should be withdrawn.

⁸ MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

In the non-final Office action mailed August 21, 2007, the Examiner rejected independent claim 43 under 35 U.S.C §103(a) over two (2) combinations of five (5) references. These two combinations are summarized in the following table:

	12	13
Rosenau et al.	x	x
Zabrocki et al.	x	x
McDonagh	x	x
Fischer et al.	x	
Yutaka	x	

Like claim 24 and claim 41, claim 43 has been amended to require a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 12, as labeled in the table above, should be withdrawn. As discussed above, *Rosenau et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. *Zabrocki et al.* relates to coextruded weatherable film structures and laminates. The coextruded weatherable film for lamination to an underlying non-weatherable substrate includes, for example, a two-layer film structure. The top layer may be a styrene/acrylonitrile copolymer (SAN).⁹ However, rubber reinforced styrene/acrylonitrile copolymers like AES or ASA are preferred as a top layer. The composition of the top layer may be blended with various weather resistant polymer materials, for example PVC.¹⁰ The second layer functions as a layer which ties or bonds together the outer weatherable (top) layer to a layer substrate.¹¹ The coextruded thermoplastic second layer may include CPE, styrenic diblock or triblock polymers, copolyamide adhesives, polyester adhesives, polyurethane adhesive, PVC and mixtures thereof.¹² *McDonagh* relates to a resin laminate having a protective layer. The laminate is composed of a base layer and a protective top layer.¹³ The base layer may be an ABS or HIPS copolymer.¹⁴ The top layer is a copolymer composed of cross-linked (meth)acrylate, cross-linked styrene-acrylonitrile and uncross-linked styrene-acrylonitrile. It may be prepared by emulsion polymerizing alkylacrylates, then grafting with styrene and acrylonitrile together with a cross-linker and finally polymerizing with

⁹ Column 3, line 47 of Zabrocki et al. US 5,306,548.

¹⁰ Column 3, line 40 – 51 of Zabrocki et al. US 5,306,548.

¹¹ Column 4, line 46 – 49 of Zabrocki et al. US 5,306,548.

¹² Column 4, line 55 – 59 of Zabrocki et al. US 5,306,548.

¹³ Column 1, lines 54 – 64 of McDonagh US 4,169,180.

¹⁴ Column 2, lines 5 to 6 of McDonagh US 4,169,180.

styrene and acrylonitrile in the absence of cross-linking agents.¹⁵ Thus, the top layer or protective layer comprises the cross-linked acrylates, cross-linked styrene-acrylonitrile and uncross-linked styrene-acrylonitrile in the amounts given in column 2, lines 38 to 45. In other words, the top layer or protective layer is an ASA copolymer. Thus, the *McDonagh* reference discloses a laminated sheet or film having an ASA top layer and an ABS or HIPS substrate layer. The Examiner acknowledged that the *Fischer et al.* reference “does not teach that the composition may comprise a polycarbonate.”¹⁶ As discussed above, *Yutaka et al.* does not provide a generalized teaching that any core/shell graft copolymer may be improved by compounding it with 5 – 95 wt % polycarbonate. Moreover, *Yutaka et al.* does not teach or suggest a substrate layer comprising a ground or granulated component consisting of polycarbonate. A skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate.

Rejection 13 is redundant in light of Rejection 12, and should be withdrawn for the reasons set forth with regard to Rejection 12.

In the non-final Office action mailed August 21, 2007, the Examiner also rejected claims 26 and 30 under 35 U.S.C §103(a) over further combinations of the above-mentioned references, in view of several additional references cited with regard to limitations described in the dependent claims. The additional references do not compensate (and were not cited to compensate) for the shortcomings described above with regard to the various rejections of claim 24. Claim 24 is non-obvious over any combination of the cited references, because even in light of the cited references, a skilled artisan had no apparent reason to combine and modify the cited references so as to arrive at a substrate layer comprising a ground or granulated component C, which consists of a polycarbonate. “If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious.”¹⁷ Since claim 24 is non-obvious, claims 26 and 30, which depend from claim 24, are also non-obvious. The rejections of claims 26 and 30 under 35 U.S.C §103(a) should be withdrawn.

¹⁵ Column 2, lines 16 to 38 of McDonagh US 4,169,180.

¹⁶ Page 3, line 17 of the Office action mailed August 21, 2007.

¹⁷ MPEP §2143.03, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

The amendments to claims 24, 41, and 43 find support in the specification on page 18, line 30 through page 19, line 1.

The present application is in condition for allowance. In order to facilitate the resolution of any issues or questions presented by this paper, the Examiner is welcome to contact the undersigned by phone to further the discussion.

NOVAK DRUCE + QUIGG, LLP
1300 Eye St. N.W.
Suite 1000 West
Washington, D.C. 20005

Phone: (202) 659-0100
Fax: (202) 659-0105

Respectfully submitted,
NOVAK DRUCE + QUIGG, LLP

A handwritten signature in black ink that reads "Michael P. Byrne". The signature is written in a cursive, flowing style.

Michael P. Byrne
Registration No.: 54,015